

Abstract of the Disclosure

A near field microscope which uses a wide frequency band by combining a probe with a waveguide resonator and has improved sensitivity and resolving power is provided. The near field microscope comprises a wave source, which emits a wave with a variable frequency, a waveguide resonator through which the wave emitted from the wave source propagates, a probe, which perforates an outer wall of the waveguide resonator and by which the wave that propagates through the waveguide resonator interacts with a sample, and a detector, which detects the wave that has interacted with the sample.